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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,724	04/16/2004	Kyung-Tac Yang	2060-3110	1348

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EXAMINER

EGAN, SCOTT T

ART UNIT	PAPER NUMBER
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2622

MAIL DATE	DELIVERY MODE
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06/05/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/826,724	Applicant(s) YANG ET AL.	
	Examiner Scott Egan	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 8, 9, and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Lim (US 2003/0227564).

Consider **claim 1**, Lim explicitly teaches:

A camera assembly for a mobile communication device (cellular phone equipped with camera drive unit, fig 3), comprising:

a camera (camera 50); and

a first portion adapted to rotate said camera (housing 25), said first portion comprising a housing (housing 25), a gear motor mounted in said housing for generating a rotational force (motor 41), and means for decelerating said rotational force for the purpose of rotating said camera (decelerator 42).

Consider **claim 2**, Lim explicitly teaches:

The camera assembly of claim 1, wherein said gear motor and said decelerating means are coaxially arranged (fig 3 demonstrates that the motor 41 and decelerator 42 are coaxially arranged).

Consider **claim 3**, Lim explicitly teaches:

The camera assembly of claim 1, wherein said decelerating means includes a drive gear provided at a camera motor (motor 41 on the same axle as the camera and decelerator) axle and being adapted to decelerate said rotational force generated from said gear motor (decelerator 42 decreases a rotating force from the motor 41), a deceleration gear operatively coupled to said drive gear and deceleration-rotated with a certain ratio (decelerator 42), a deceleration rotational axle for transmitting said decelerated rotational force (rotational axle is interpreted as being the same axle the camera and motor are located on), and a transmission gear operatively coupled between said drive gear and said deceleration gear (output terminal (s1) is interpreted as the transmission gear in that it relays the output to the camera).

Consider **claim 4**, Lim explicitly teaches:

The camera assembly of claim 3, wherein a first connection terminal is installed at said gear motor (motor 41 is installed in one end of the housing 25 to generate a rotating force by having power supplied from the outside, paragraph [0055], lines 1-3, this is interpreted as a first connection through which the motor receives power), and a second connection terminal is coupled to at least one of a plurality of body side hinge portions relative to said first connection terminal (paragraph [0028], lines 2-9, this

section is interpreted as a second connection relative to the first in that it connects the side portion with the camera rotating portion).

Consider **claim 8**, Lim explicitly teaches:

The camera assembly of claim 1, further comprising means for controlling the rotation of said camera (motor 41 and decelerator 42).

Consider **claim 9**, Lim explicitly teaches:

The camera assembly of claim 8, wherein a flexible printed circuit board (FPCB) accommodation portion is formed at one side of said camera (paragraph [0052], lines 1-7).

Consider **claim 11**, Lim explicitly teaches:

The camera assembly of claim 3, wherein said camera is directly connected to deceleration rotational axle (fig 3 shows that camera 50 is on the same rotational axle as decelerator 42).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

Art Unit: 2622

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 5-7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lim in view of Kang (US 7,133,691).

Consider **claim 5**, Lim explicitly teaches the camera assembly of claim 4.

However Lim does not explicitly teach that a frictional plate is coupled to said deceleration rotational axle.

In the same field of endeavor, Kang teaches a portable phone with a camera that can rotate 360 degrees around. Kang further discloses a bushing 42 and a elastic sub-part 44 which are attached to the camera module 30 and act as a frictional plate.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the bushing and elastic sub-part found in Kang into the cellular phone equipped with camera drive unit found in Lim in order to provide a lock-in position, which will produce a much more accurate image in that it stops the camera from rotating on it's own.

Consider **claim 6**, the combination of Lim in view of Kang further teaches the camera assembly of claim 5, wherein said frictional plate is provided with a plurality of stepped protrusions (protrusion 44a), and said camera is provided with a plurality of grooves adapted to mate with said plurality of stepped protrusions (grooves 42a).

Consider **claim 7**, the combination of Lim in view of Kang further teaches the camera assembly ^{of} ~~an~~ claim 6, wherein said stepped protrusions and said mating

grooves are respectively hemispherically shaped (fig 6 in Kang shows that the protrusions and grooves are hemispherically shaped).

Consider **claim 10**, Lim explicitly teaches the camera assembly of claim 4.

However Lim does not explicitly teach that the first portion is inserted into a hinge groove formed inside said plurality of body side hinge portions and is fixed by a fixation ring.

In the same field of endeavor, Kang teaches a portable phone with a camera that can rotate 360 degrees around. Kang further discloses a bushing 42 and a elastic sub-part 44 which are attached to the camera module 30 and act as a fixation ring as well as the portion that extends into the grooves on the housing as seen in fig 4.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the properties of connecting the camera module to the body found in Kang into the cellular phone equipped with camera drive unit found in Lim in order to provide a lock-in position, which will produce a much more accurate image in that it stops the camera from rotating on it's own.

Conclusion

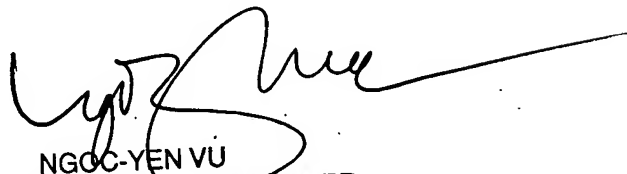
3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Fisher (US 6,876,379) discloses a mobile communications device, which includes a camera module that is rotatable on the same axis as the hinge that opens the phone. (KR 2003078230) discloses a hinge device of a cellular phone that includes a motor that rotates the camera housing.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Egan whose telephone number is (571) 270-1452. The examiner can normally be reached on Monday-Friday 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ngoc-Yen Vu can be reached on (571) 272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SE


NGOC-YEN VU
SUPERVISORY PATENT EXAMINER